

CLAIMS

What is claimed is:

1. An organophotoreceptor comprising:

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a) an electrically conductive substrate;

b) a photoconductive element comprising at least a charge generation compound wherein the photoconductive layer is on the electrically conductive substrate; and

c) an overcoat layer comprising a first binder and at least an inorganic ionic salt wherein the overcoat layer is on the photoconductive layer and wherein the binder is not
10 a silsesquioxane polymer.

2. An organophotoreceptor according to claim 1 wherein the photoconductive layer further comprises an electron transport compound.

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3. An organophotoreceptor according to claim 1 wherein the photoconductive layer further comprises a charge transport compound.

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4. An organophotoreceptor according to claim 3 wherein the charge transport compound comprises a stilbenyl group.

5. An organophotoreceptor according to claim 1 wherein the photoconductive layer further comprises a charge transport compound and an electron transport compound.

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6. An organophotoreceptor according to claim 1 wherein the first binder is a water-based polymeric binder.

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7. An organophotoreceptor according to claim 1 wherein the first binder is an organic polymeric binder.

8. An organophotoreceptor according to claim 1 wherein the first binder is selected from the group consisting of fluorinated polymer, siloxane polymer, fluorosilicone polymer, silane, polyethylene, polypropylene, polyacrylate, poly(methyl

methacrylate-co-methacrylic acid), urethane resin, urethane-epoxy resin, urethane-acrylic resin, and a combination thereof.

9. An organophotoreceptor according to claim 1 wherein the amount of the salt in
5 the overcoat layer is between 0.5% and 50% by weight.

10. An organophotoreceptor according to claim 1 wherein the amount of the salt
in the overcoat layer is between 1% and 30% by weight.

11. An organophotoreceptor according to claim 1 wherein the salt comprises a
cation selected from the group consisting of lithium cation and sodium cation.

12. An organophotoreceptor according to claim 1 wherein the photoconductive
element further comprises a second binder.

13. An organophotoreceptor according to claim 1 further comprising a sublayer
15 located between the electrically conductive substrate and the photoconductive element.

14. An organophotoreceptor according to claim 1 further comprising a barrier
20 layer located between the overcoat layer and the photoconductive element.

15. An organophotoreceptor according to claim 1 wherein the salt comprises an
anion selected from the group consisting of Br⁻ and I⁻.

16. An organophotoreceptor according to claim 1 wherein the overcoat layer has a
25 thickness from about 0.1 microns to about 20 microns.

17. An electrophotographic imaging apparatus comprising:
(a) a light imaging component; and
30 (b) an organophotoreceptor oriented to receive light from the light imaging
component, the organophotoreceptor comprising an electrically conductive substrate and

a photoconductive element on said electrically conductive substrate wherein said photoconductive element comprises a charge generation compound and an overcoat layer comprising a first binder and an inorganic salt, wherein the photoconductive layer is on the electrically conductive substrate, wherein the overcoat layer is on the photoconductive layer and wherein the binder is not a silsesquioxane polymer.

18. An electrophotographic imaging apparatus according to claim 17 wherein the photoconductive element further comprises an electron transport compound.
- 10 19. An electrophotographic imaging apparatus according to claim 17 wherein the photoconductive element further comprises a charge transport compound.
20. An electrophotographic imaging apparatus according to claim 17 wherein the first binder is a water-based polymeric binder.
- 15 21. An electrophotographic imaging apparatus according to claim 17 wherein the first binder is an organic polymeric binder.
22. An electrophotographic imaging apparatus according to claim 17 wherein the amount of the salt in the overcoat layer is between 1% and 50% by weight.
- 20 23. An electrophotographic imaging apparatus according to claim 17 wherein the cation is selected from the group consisting of lithium cation and sodium cation.
24. An electrophotographic imaging apparatus according to claim 17 wherein the photoconductive element layer further comprises a second binder.
- 25 25. An electrophotographic imaging apparatus according to claim 17 further comprising a liquid toner dispenser.
- 30 26. An electrophotographic imaging process comprising:

- 5 (a) applying an electrical charge to a surface of an organophotoreceptor comprising an electrically conductive substrate; a photoconductive layer comprising a charge generation compound; and an overcoat layer comprising a first binder and at least an inorganic salt, wherein the photoconductive layer is on the electrically conductive substrate, wherein the overcoat layer is on the photoconductive layer and wherein the binder is not a silsesquioxane polymer;
- (b) imagewise exposing the surface of the organophotoreceptor to radiation to dissipate charge in selected areas and thereby form a pattern of charged and uncharged areas on the surface;
- 10 (c) contacting the surface with a toner to create a toned image; and
- (d) transferring the toned image to a substrate.

15 27. An electrophotographic imaging process according to claim 26 wherein the photoconductive layer further comprises at least an electron transport compound.

28. An electrophotographic imaging process according to claim 26 wherein the photoconductive layer further comprises at least a charge transport compound.

20 29. An electrophotographic imaging process according to claim 26 wherein the first binder is a water-based polymeric binder.

30. An electrophotographic imaging process according to claim 26 wherein the first binder is an organic polymeric binder.

25 31. An electrophotographic imaging process according to claim 26 wherein the amount of the salt in the overcoat layer is between 1% and 50% by weight.

30 32. An electrophotographic imaging process according to claim 26 wherein the salt comprises a cation selected from the group consisting of lithium cation and sodium cation.

33. An electrophotographic imaging process according to claim 26 wherein the photoconductive element further comprises a second binder.

34. An electrophotographic imaging process according to claim 26 wherein the
5 salt comprises an anion selected from the group consisting of Br⁻ and I⁻.